



>>Entry Name: Chromium(III) oxide (Cr₂O₃)

Synonym(s): Chromic trioxide. Chromium sesquioxide. **Dichromium trioxide**, BAN. Chromium oxide green. C.I. Pigment Green 17. Green cinnaar. Ultramarine green. C.I. 77288

CAS Registry Number: 1308-38-9

Related CAS Registry Numbers(s): 11118-57-3 12182-82-0



Molecular Formula: Cr₂O₃

Molecular Weight: 151.99

Accurate Mass: 151.865763

Percentage Composition: Cr 68.42%; O 31.58%

General Statement: Possesses corundum struct.

Source/Synthesis: Formed from Cr + O₂

Use/Importance: Commercially available. Catalyst for org. reactions. Used in abrasives, as important pigment, most stable green pigment known

Biological Use/Importance: Diagnostic agent

Physical Description: Green cryst.

Melting Point: Mp 2275°

Other Data: Dissoc. below Mp

Aldrich: 39370-3

Fluka: 27085

Sigma: C2146

>>Derivative: Dihydrate

Synonym(s): Guignet's green

CAS Registry Number: 12001-99-9

Use/Importance: Pigment

Other Data: Formulated as Cr₂O₃·xH₂O, x=2

References:

Mellor Compr. Treat. Inorg. Theor. Chem., 1931, **11**, 176, (rev, bibl)

Gmelin Handbook Inorg. Chem., Syst. No. 52, 1962, 12; 81, (rev, bibl)

Kirk-Othmer Encycl. Chem. Technol., 3rd edn., Wiley, 1978, **2**, 490; **3**, 752; **6**, 87; 107; **20**, 5, (manuf, uses)

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th edn., Van Nostrand Reinhold, 1992, CMJ900